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Apple Inc. (AAPL-US)

Technology Hardware, Storage & Peripherals

- We reiterate our Strong Buy rating on AAPL as the strength of its business model, combined with increasing Services revenue and the upcoming launch of its 5G-enabled iPhone, will continue to drive further share price gains.
- The upcoming 5G-enabled iPhone launch, combined with the ongoing growth in Services revenue, will continue to drive accelerating Business Performance.
- The introduction of the new 5G-enabled iPhones will drive a major upgrade cycle and is a tremendous upside catalyst to the share price.
- AAPL’s launch of its new “Apple One” bundles will drive significant increases in Services and subscription revenues.
- AAPL’s acquisition of payment startup Mobeewave further increases its mobile payment and financial services capabilities.
- AAPL continues to make strategic acquisitions to further the functionality of its iPhone and expand the functionality of its iPhone ecosystem.
- AAPL will continue to incorporate AI technologies and AR/VR capabilities into future products.
- AAPL’s strong balance sheet and cash flow will continue to fund growth and strategic acquisitions, along with enhancing shareholder returns through ongoing dividend increases and share repurchases.
- AAPL is on our Research Focus List and in our Focus Opportunity Portfolio.

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Company Note
Apple Inc. (AAPL-US)

Technology Hardware, Storage & Peripherals

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Research Action:

Reiterate rating

Rating: Strong Buy

Prior Rating: Strong Buy

Price 08/19/2020: \$462.83

52 Week High / \$468.65

Low: \$199.67

Key Data: (TTM as of Jun-20)
Excess Cash per Share: \$42.11

Annual Dividend: \$3.28

Dividend Yield: 0.71%

Avg. Volume (30 Day): 40.8M

Shares Outstanding: 4,275.6M

Float: 4,271.5M

Short Interest: 26.5M

SI % / Float 0.62%

Equity MV: \$1,978,889.8M

Sales TTM: \$273,420.0M

Beta: 1.06

EBITDAR: \$99,931.4M

NOPAT: \$60,257.9M

Total Invested Capital: \$204,827.6M

Return on Capital: 27.76%

Cost of Capital: 4.83%

Economic Profit: \$49,781.9M

Market Value Added: \$1,903,599.7M

Current Operations Value: \$1,248,559.8M

Future Growth Value: \$859,867.5M

- We reiterate our Strong Buy rating on AAPL as the strength of its business model, combined with increasing Services revenue and the upcoming launch of its 5G-enabled iPhone, will continue to drive further share price gains.** AAPL recently reported strong Q3 results with strong gains across all product lines, including iPhone sales and better-than-expected Services revenue. China was also a surprising bright spot, marking a rebound in the sales of many of AAPL's key products. AAPL continues to benefit from the COVID-19 pandemic as its products, apps, and services support people's ability to work, learn, and entertain at home. CEO Tim Cook said that this company's strong performance in these difficult times is a testament to the important role AAPL's products play in consumers' lives. The upcoming 5G-enabled iPhone 12 launch will be a powerful driver, kicking off a major upgrade supercycle and a major upside catalyst for the stock. AAPL continues to see steady momentum in App Store sales along with increasing adoption of Apple Arcade, Apple Music, Apple TV+, and the Apple Card credit card. AAPL's Services revenue hit another record of \$13.2 billion, up 15% Y/Y, and could easily exceed \$60 billion in the next 12 months, with the potential to more than double over the next few years as AAPL continues to penetrate its installed device user base of over 1.5 billion. AAPL continues to experience increased user engagement on FaceTime, iMessage, and Siri. AAPL continues to dominate the fast-growing Smart Wearables market, which will continue to gain traction as more features, and most importantly, more advanced health monitoring capabilities, are incorporated into functionality. AAPL's ongoing commitment to return significant amounts of cash to shareholders will continue to provide stability in volatile markets and enhance the stock's total return. AAPL also announced a 4-for-1 stock split, which becomes effective next week. We believe significant upside in the shares exists from current levels and continue to recommend purchase.

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- **The upcoming 5G-enabled iPhone launch, combined with the ongoing growth in Services revenue, will continue to drive accelerating Business Performance.** For the 12 months of June 2020, Net Sales Revenue increased 5.68% Y/Y from \$258.71 billion to \$273.42 billion. We forecast a further increase of 9.70% to \$299.45 billion over the NTM. Economic Operating Cash Flow (EBITDAR) increased 2.04% Y/Y from \$97.94 billion to \$99.93 billion over the LTM. We forecast a further increase of 13.48% to \$113.41 billion over the NTM. Net Operating Profit After Tax (NOPAT) increased 3.90% Y/Y from \$57.99 billion to \$60.26 billion over the LTM. We forecast a further increase of 7.87% to \$64.99 billion over the NTM. Return on Capital (ROC) increased from 24.31% to 27.76% over the LTM. We forecast a further increase to 30.50% over the NTM. Economic Profit increased 11.48% Y/Y from \$44.66 billion to \$49.78 billion over the LTM. We forecast a further increase of 8.09% to \$53.81 billion over the NTM. The accelerating growth in Services and the major upgrade supercycle potential of the upcoming 5G-enabled iPhone 12 will drive an acceleration in Business Performance trends that could provide further upside to our current expectations. AAPL's ability to driving an increasing Return on Capital will continue to drive growth in Economic Profit and drive further shareholder value creation.
- **The introduction of the new 5G-enabled iPhones will drive a major upgrade cycle and is a tremendous upside catalyst to the share price.** AAPL's launch of the 5G iPhone expected in October will drive the biggest upgrade cycle in iPhone history. The major iPhone new product cycle will feature the new iPhone 12, AAPL's 5G-enabled flagship phone, expected to have a MacBook Pro-like performance and functionality, a fourth camera, and include AAPL's new ProMotion next-generation OLED display. AAPL could introduce as many as four new handset models with various processor speeds, memory, displays, and cameras. Earlier this year, AAPL introduced two new versions of its iPad Pro with either an 11-inch or a 12.9-inch screen along with many new high-tech features, including a rear-facing 3D camera that allows the device to scan 3D objects up to 16 feet away for use within augmented reality applications. The new iPad Pro also has two wide-angle lenses for taking pictures, an upgrade from the single wide-angle lens of prior models. The 3D functionality can take measurements for many types of product manufacturing, including clothing. AAPL will most likely introduce the next generation of its Apple Watch and AirPods later this year as well.

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- **AAPL’s launch of its new “Apple One” bundles will drive significant increases in Services and subscription revenues.** AAPL will begin to offer product subscription bundles enabling subscriptions to multiple digital services at a discount to expand its highly profitable Services revenue. Consumers will be able to subscribe to multiple services including, Fitness, Gaming, Music, News, and other services such as iCloud, Apple TV+, and Apple Arcade in combination packages. AAPL is seeking to increase subscription revenue and customer loyalty similar to Amazon’s (AMZN-US, Buy Rated) Amazon Prime membership in an attempt to drive increasing recurring Services revenue and continue to penetrate and monetize its over 1.5 billion-strong iPhone user installed base. The launch of Apple One bundles is expected to take place in October, coinciding with the launch of its 5G-enabled iPhone 12. The new bundles are also geared for multiuser subscribers, becoming part of Apple’s Family Sharing plans that provide access for up to six users for each service. AAPL’s Services will continue to drive incremental revenue growth and profitability with a current run rate exceeding \$60 billion that could more than double over the next few years. In AAPL’s recently reported Q3 2020 results, Services revenue increased 15% Y/Y to an all-time record of \$13.2 billion, driven by record gains across key categories, including Cloud Services, Music, Payments, Apps, AppleCare, and Search-driven advertising. Services revenue will continue to grow as AAPL continues to further penetrate its over 1.5 billion installed user base.
- **AAPL’s acquisition of payment startup Mobeewave further increases its mobile payment and financial services capabilities.** The acquisition of startup payment service provider Mobeewave turns iPhones into portable payment terminals. Mobeewave uses its downloadable app and leverages the iPhone’s NFC (Near Field Communications) functionality to process payments by tapping a credit card on an iPhone or another iPhone to process a payment. AAPL has incorporated its Apple Pay capabilities, enabling users to pay using their iPhone NFC capabilities in retail stores with NFC-enabled payment terminals. AAPL also launched its own Apple Card in partnership last year with Goldman Sachs (GS-US, Buy Rated) and Mastercard (MA-US, Strong Buy) as it continues to provide incremental financial services capabilities through its expanding Services platform in its Apple and iPhone ecosystem. AAPL recently announced the expansion of its interest-free payment plans for additional products using its Apple Card. AAPL will begin to allow customers using its Apple Card to buy other products, including iPads, Macs, even AirPods, on an interest-free payment plan of various plans similar to the purchase of iPhones. The increased purchase plans should drive increased enrollment for its Apple Card as well as drive incremental hardware sales. The Apple Card is a key Services driver: the more consumers that have it, the more it will be used to add services, including cloud, gaming, music, and other purchases.

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- **AAPL continues to make strategic acquisitions to further the functionality of its iPhone and expand the functionality of its iPhone ecosystem.** Recent acquisitions that AAPL has made so far this year include weather app Dark Sky, and virtual reality content broadcasting company NextVR. AAPL also acquired Inductiv, Voysis, and Xnor.ai to further provide enhanced AI (Artificial Intelligence) capabilities for its voice interface Siri, and Fleetsmith for enterprise device deployment and management. AAPL also continues to add content and expand its Services platform, having recently purchased Tom Hank's movie *Greyhound*, which was released in July, as well as Martin Scorsese's upcoming *Killers of the Flower Moon*, starring both Robert De Niro and Leonardo DiCaprio, scheduled for release next year.
- **AAPL will continue to incorporate AI technologies and AR/VR capabilities into future products.** AI and AR/VR technologies continue to improve the features and capabilities of many of AAPL's products, along with the ability to increase security, efficiency, and predictive capabilities. Combined with internal development efforts, AAPL continues to make strategic acquisitions of companies with expertise in AI and VR/AR hardware along with 3D gaming and virtual reality software. AAPL introduced its third-party developer ARKit to create AR experiences on its iOS platform. AAPL's Core ML 2 API enables developers to incorporate functionality for the recognition of content in photos as well as to derive meanings from text strings. AAPL's Create ML provides machine learning capabilities on its Mac platform, which is built upon the Swift programming language. AAPL is further enhancing its machine learning division and making key acquisitions to support further development of Siri functionality. AAPL will continue to develop new products to increase its participation in the fast-growing Internet of things (IoT) market of connected and automated devices, appliances, and automobiles. AAPL continues to invest in new technologies to drive future growth opportunities.

- **AAPL's strong balance sheet and cash flow will continue to fund growth and strategic acquisitions, along with enhancing shareholder returns through ongoing dividend increases and share repurchases.** As of June 2020, AAPL had \$181.60 billion, or \$42.11 per share, in excess cash. AAPL is projected to generate an additional \$113.41 billion in Economic Operating Cash Flow (EBITDAR) over the NTM, which, in combination with its excess cash, will enable the continued funding of new growth initiatives and strategic acquisitions while returning significant amounts of cash to shareholders. AAPL continues to make strategic acquisitions to enhance its product portfolio functionality as well as further vertically integrate its product development and manufacturing process. AAPL recently announced the acquisition of virtual reality startup NextVR which produces specialized VR content, including sports competitions and concert performances. AAPL also recently acquired machine voice integration software company Voysis Ltd. Last year AAPL acquired Intel's (INTC-US, Buy Rated) wireless modem business. AAPL continues to return significant amounts of cash to shareholders through dividend increases and share repurchases. This past April, AAPL announced an additional \$50 billion share repurchase. In the most recent quarter, AAPL repurchased \$15.89 billion worth of stock, which followed a purchase of \$18.57 billion in the prior quarter. AAPL repurchased \$66.90 billion worth of stock in FY 2019, which followed a repurchase of \$72.74 billion in FY 2018. AAPL's stock will split 4-for-1, effective on August 28th.
- **AAPL is on our Research Focus List and in our Focus Opportunity Portfolio.** AAPL's industry-leading position and strong brand equity, driven by its innovative ability and powerful cash generation, will continue to generate increasing Economic Profit and greater shareholder value creation.

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Investment Thesis

AAPL continues to remain an undervalued stock relative to its economic earnings power, brand equity, loyal customer base, cash generation ability, incredibly strong balance sheet, and ability to innovate to create new products as it continues to expand its ecosystem. The ever-growing AAPL user base and ecosystem continues to drive increased growth in its highly profitable Services business. Focus on healthcare, and the integration of health monitoring into Wearables also creates another growth opportunity. AAPL's ongoing ability to grow the iPhone user base globally, along with its ever-expanding ecosystem, which will eventually include the connected home and connected car, will continue to drive increasing Economic Profit and greater shareholder value creation. AAPL's strong cash flow and balance sheet provide significant downside protection in any economic or business cycle downturn, and AAPL also continues to enhance shareholder returns through the ongoing return of cash to shareholders through dividends and share repurchases.

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Company Overview

Apple Inc. (AAPL-US) is the world's leading designer, manufacturer, and marketer of personal computers and mobile communication and media devices, along with related software, services, peripherals, and networking solutions. Apple has also expanded into new markets of connected devices and services that comprise its connected ecosystem, including Apple Watch, Apple TV, AirPods, and its iCloud cloud Services platform. Apple has launched multiple key entertainment services, including its Apple Arcade subscription gaming service, Apple News, Apple Pay, Apple Music, and its subscription entertainment platform Apple TV+ that includes original content. Apple has also launched its Siri-integrated home control interface speaker called HomePod to compete with Amazon's Alexa-based Echo and Google Home. In addition, the recently launched Apple Credit Card in partnership with Goldman Sachs and Mastercard creates a financial services ecosystem for Apple customers to pay for product purchases and ongoing monthly subscription services. Apple sells its products worldwide through a combination of its retail and online stores, along with its direct sales force, retailers, and third-party wholesalers.

Apple operates and reports its revenue by five Business Segments: iPhone (55% of revenue), Services (18% of revenue) which includes iCloud, AppleCare and Apple Pay along with several newly launched services including Apple TV+ and Apple Arcade; Mac (10% of revenue); Wearables, Home and Accessories (9% of revenue); and iPad (8% of revenue).

Apple reports revenue in six Geographic Segments including: United States (39% of revenue); Europe (23% revenue); greater China (17% of revenue); Japan (8% of revenue); Rest of Asia Pacific (7% of revenue); and the Americas (6% of revenue).



Company Report – Research Update

Apple Inc. (AAPL-US)

Technology Hardware, Storage & Peripherals

Financial Data

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	06/27/2015	06/25/2016	07/01/2017	06/30/2018	06/29/2019	06/27/2020	06/30/2021		Average	Average	Trend
Net Sales Revenue	\$222,562.0	\$218,358.0	\$222,770.0	\$255,702.0	\$258,713.0	\$273,420.0	\$299,945.5	\$245,792.6	\$262,611.7	\$286,682.8	
Sales Growth	24.74%	-1.89%	2.02%	14.78%	1.18%	5.68%	9.70%	4.36%	7.22%	7.69%	
Sales Growth Trend	16.99%	8.76%	0.46%	9.68%	6.62%	3.86%	8.09%	5.88%	6.73%	5.99%	
Economic Operating Cash Flow (EBITDAR)	\$85,664.5	\$85,292.9	\$85,462.3	\$99,782.5	\$97,936.7	\$99,931.4	\$113,406.4	\$93,681.2	\$99,216.9	\$106,668.9	
EBITDAR Margin	38.49%	39.06%	38.36%	39.02%	37.86%	36.55%	37.81%	38.17%	37.81%	37.18%	
EBITDAR Growth	28.26%	-0.43%	0.20%	16.76%	-1.85%	2.04%	13.48%	3.34%	5.65%	7.76%	
Net Operating Profit Before Tax (NOPBT)	\$67,307.5	\$63,727.9	\$63,148.3	\$74,566.5	\$68,757.7	\$70,461.4	\$81,493.9	\$68,132.4	\$71,261.9	\$75,977.7	
NOPBT Margin	30.24%	29.19%	28.35%	29.16%	26.58%	25.77%	27.17%	27.81%	27.17%	26.47%	
NOPBT Growth	27.33%	-5.32%	-0.91%	18.08%	-7.79%	2.48%	15.66%	1.31%	4.26%	9.07%	
Cash Operating Income Tax	\$17,761.2	\$16,316.3	\$15,907.6	\$15,124.3	\$10,762.8	\$10,203.5	\$16,494.4	\$13,662.9	\$12,030.2	\$13,349.0	
Economic Tax Effective Rate	26.39%	25.60%	25.19%	20.28%	15.65%	14.48%	20.24%	20.24%	16.81%	17.36%	
Net Operating Profit After Tax (NOPAT)	\$49,546.3	\$47,411.5	\$47,240.7	\$59,442.2	\$57,994.9	\$60,257.9	\$64,999.6	\$54,469.5	\$59,231.7	\$62,628.7	
NOPAT Margin	22.26%	21.71%	21.21%	23.25%	22.42%	22.04%	21.67%	22.12%	22.57%	21.85%	
NOPAT Growth	26.79%	-4.31%	-0.36%	25.83%	-2.43%	3.90%	7.87%	4.53%	9.10%	5.89%	
Cash & Equivalents	\$202,848.0	\$231,520.0	\$261,516.0	\$243,743.0	\$212,231.0	\$195,273.0	\$211,079.8	\$228,856.6	\$217,082.3	\$203,176.4	
Total Assets	\$273,151.0	\$305,602.0	\$345,173.0	\$349,197.0	\$322,239.0	\$317,344.0	\$343,032.0	\$327,911.0	\$329,593.3	\$330,188.0	
Non - Interest Bearing Liabilities (NIBLs)	\$91,505.0	\$94,126.0	\$104,409.0	\$119,648.0	\$117,365.0	\$122,876.0	\$132,822.4	\$111,684.8	\$119,963.0	\$127,849.2	
Net Assets	\$181,646.0	\$211,476.0	\$240,764.0	\$229,549.0	\$204,874.0	\$194,468.0	\$210,209.6	\$216,226.2	\$209,630.3	\$202,338.8	
Economic Asset Adjustments	\$28,534.1	\$39,700.7	\$37,050.4	\$18,361.3	\$24,429.6	\$10,359.6	\$11,198.2	\$25,980.3	\$17,716.8	\$10,778.9	
Net Operating Assets	\$210,180.1	\$251,176.7	\$277,814.4	\$247,910.3	\$229,303.6	\$204,827.6	\$221,407.8	\$242,206.5	\$227,347.2	\$213,117.7	
Debt & Debt Equivalents	\$58,832.1	\$90,565.7	\$115,048.4	\$122,753.3	\$116,958.6	\$132,015.6	\$142,701.8	\$115,468.3	\$123,909.2	\$137,358.7	
Equity & Equivalents	\$125,677.0	\$126,541.0	\$132,425.0	\$114,949.0	\$96,456.0	\$72,282.0	\$78,133.0	\$108,530.6	\$94,562.3	\$75,207.5	
Total Capital - Financing Sources	\$184,509.1	\$217,106.7	\$247,473.4	\$237,702.3	\$213,414.6	\$204,297.6	\$220,834.9	\$223,998.9	\$218,471.5	\$212,566.2	
Capital Adjustments	\$24,120.0	\$34,070.0	\$30,341.0	\$10,208.0	\$15,889.0	\$530.0	\$572.9	\$18,207.6	\$8,875.7	\$551.5	
Net Capital Financing Sources	\$208,629.1	\$251,176.7	\$277,814.4	\$247,910.3	\$229,303.6	\$204,827.6	\$221,407.8	\$242,206.5	\$227,347.2	\$213,117.7	
Net Working Capital	(\$9,273.9)	(\$12,512.1)	(\$15,517.5)	(\$13,441.9)	(\$13,193.4)	(\$14,588.0)	(\$15,768.9)	(\$13,850.6)	(\$13,741.1)	(\$15,178.4)	
Cost of Net Working Capital	(\$408.9)	(\$582.4)	(\$848.0)	(\$990.2)	(\$744.5)	(\$670.4)	(\$724.7)	(\$767.1)	(\$801.7)	(\$697.5)	
% of Revenue	-0.18%	-0.27%	-0.38%	-0.39%	-0.29%	-0.25%	-0.24%	-0.31%	-0.31%	-0.24%	
Operational Capital	\$16,289.2	\$18,566.6	\$20,477.9	\$32,828.4	\$32,983.3	\$39,092.6	\$42,257.0	\$28,789.8	\$34,968.1	\$40,674.8	
Cost of Operational Capital	\$1,069.1	\$931.8	\$1,181.3	\$1,822.6	\$1,839.5	\$1,739.3	\$1,880.0	\$1,502.9	\$1,800.5	\$1,809.7	
% of Revenue	0.48%	0.43%	0.53%	0.71%	0.71%	0.64%	0.63%	0.60%	0.69%	0.63%	
Productive Capital	\$25,112.2	\$27,333.6	\$28,582.9	\$32,828.4	\$32,983.3	\$39,092.6	\$42,257.0	\$32,164.2	\$34,968.1	\$40,674.8	
Cost of Productive Capital	\$1,536.8	\$1,402.1	\$1,691.7	\$2,099.7	\$1,839.5	\$1,739.3	\$1,880.0	\$1,754.5	\$1,892.8	\$1,809.7	
% of Revenue	0.69%	0.64%	0.76%	0.82%	0.71%	0.64%	0.63%	0.71%	0.72%	0.63%	
Total Operating Capital	\$18,460.2	\$30,574.6	\$27,436.9	\$16,952.4	\$30,008.3	\$23,225.6	\$25,105.6	\$25,639.6	\$23,395.4	\$24,165.6	
Cost of Total Operating Capital	\$1,145.8	\$1,310.9	\$1,755.1	\$1,517.7	\$1,312.6	\$1,284.6	\$1,388.6	\$1,436.2	\$1,371.6	\$1,336.6	
% of Revenue	0.51%	0.60%	0.79%	0.59%	0.51%	0.47%	0.46%	0.59%	0.52%	0.47%	
Non - Operating Capital	\$191,719.9	\$220,602.1	\$250,377.5	\$230,957.9	\$199,295.4	\$181,602.0	\$196,302.1	\$216,567.0	\$203,951.8	\$188,952.1	
Cost of Non - Operating Capital	\$10,853.4	\$11,023.0	\$14,249.3	\$16,457.4	\$12,026.3	\$9,191.4	\$9,935.4	\$12,589.5	\$12,558.4	\$9,563.4	
% of Revenue	4.88%	5.05%	6.40%	6.44%	4.65%	3.36%	3.31%	5.18%	4.82%	3.34%	
Total Capital	\$210,180.1	\$251,176.7	\$277,814.4	\$247,910.3	\$229,303.6	\$204,827.6	\$221,407.8	\$242,206.5	\$227,347.2	\$213,117.7	
Cost of Total Capital	\$11,999.2	\$12,333.9	\$16,004.4	\$17,975.1	\$13,338.9	\$10,476.0	\$11,324.0	\$14,025.7	\$13,930.0	\$10,900.0	
% of Revenue	5.39%	5.65%	7.18%	7.03%	5.16%	3.83%	3.78%	5.77%	5.34%	3.80%	
Cost of Capital (WACC)	6.25%	5.35%	6.05%	6.84%	5.59%	4.83%	4.83%	5.73%	5.75%	4.83%	
Capital Structure											
Debt & Debt Equivalents	\$58,832.1	\$90,565.7	\$115,048.4	\$122,753.3	\$116,958.6	\$132,015.6	\$142,701.8	\$115,468.3	\$123,909.2	\$137,358.7	
Debt & Debt Equivalents % of Market Value	7.46%	15.04%	13.29%	11.89%	11.38%	7.93%	7.93%	11.12%	9.98%	7.93%	
Preferred Equity	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Preferred Equity % of Market Value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Market Value of Common Equity	\$730,210.5	\$511,591.5	\$750,897.2	\$909,841.2	\$910,644.8	\$1,532,750.9	\$1,656,822.4	\$923,145.1	\$1,117,745.6	\$1,594,786.7	
Common Equity % of Market Value	92.54%	84.96%	86.71%	88.11%	88.62%	92.07%	92.07%	88.88%	90.02%	92.07%	
Total Economic Market Value (MV)	\$789,042.6	\$602,157.2	\$865,945.6	\$1,032,594.5	\$1,027,603.4	\$1,664,766.5	\$1,799,524.3	\$1,038,613.5	\$1,241,654.8	\$1,732,145.4	
Total %	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Excess Cash	\$191,719.9	\$220,602.1	\$250,377.5	\$230,957.9	\$199,295.4	\$181,602.0	\$196,302.1	\$216,567.0	\$203,951.8	\$188,952.1	
Economic Enterprise Value	\$597,322.7	\$381,555.1	\$615,568.1	\$801,636.6	\$828,308.1	\$1,483,164.5	\$1,603,222.1	\$822,046.5	\$1,037,703.0	\$1,543,193.3	
Average Capital	\$190,583.6	\$229,902.9	\$264,495.6	\$262,862.3	\$238,606.9	\$217,065.6	\$213,117.7	\$242,586.7	\$239,511.6	\$215,091.6	
Capital Δ	\$36,090.9	\$42,547.7	\$26,637.7	(\$29,904.1)	(\$18,606.7)	(\$24,476.0)	\$16,580.2	(\$76.3)	(\$24,328.9)	(\$3,947.9)	

Source: Company Data, Financial statements and Tigress Research

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Company Report – Research Update

Apple Inc. (AAPL-US)

Technology Hardware, Storage & Peripherals

Financial Analysis

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	06/27/2015	06/25/2016	07/01/2017	06/30/2018	06/29/2019	06/27/2020	06/30/2021	Average	Average	Trend
Return on Market Value (NOPAT / MV)	6.28%	7.87%	5.46%	5.76%	5.64%	3.62%	3.91%	5.67%	5.01%	3.77%
Return on Enterprise Value (NOPAT / EV)	8.29%	12.43%	7.67%	7.42%	7.00%	4.06%	4.39%	7.72%	6.16%	4.23%
Return on Capital (NOPAT / Average Capital)	26.00%	20.62%	17.86%	22.61%	24.31%	27.76%	30.50%	22.63%	24.89%	29.13%
Cost of Capital (WACC)	6.25%	5.35%	6.05%	6.84%	5.59%	4.83%	4.83%	5.73%	5.75%	4.83%
Economic Return Spread	19.75%	15.28%	11.81%	15.78%	18.72%	22.93%	24.79%	16.90%	19.14%	23.86%
Capital Charge	\$11,912.2	\$12,292.4	\$16,004.4	\$17,975.1	\$13,338.9	\$10,476.0	\$11,324.0	\$14,017.4	\$13,930.0	\$10,900.0
Economic Profit (EP)	\$37,634.1	\$35,119.1	\$31,236.3	\$41,467.1	\$44,656.0	\$49,781.9	\$53,811.6	\$40,452.1	\$45,301.7	\$51,796.7
Economic Profit Improvement (EPI)	\$9,347.3	(\$2,515.0)	(\$3,882.8)	\$10,230.8	\$3,188.9	\$5,125.9	\$4,029.7	\$2,429.6	\$6,181.9	\$4,577.8
EP Growth	33.04%	-6.68%	-11.06%	32.75%	7.69%	11.48%	8.09%	6.84%	17.31%	9.79%
Economic Profit Margin on Sales	16.91%	16.08%	14.02%	16.22%	17.26%	18.21%	17.94%	16.36%	17.23%	18.07%
Economic Profit Per Share	\$6.18	\$6.10	\$5.71	\$7.95	\$9.01	\$10.78	\$11.65	\$7.91	\$9.25	\$11.22
GAAP Earnings Per Share	\$8.71	\$8.61	\$8.85	\$11.11	\$11.83	\$13.27	\$14.56	\$10.73	\$12.07	\$13.92
Excess Cash Per Share	\$33.46	\$40.53	\$48.20	\$47.31	\$43.60	\$42.11	\$45.52	\$44.35	\$44.34	\$43.81
Performance Drivers										
Sales Growth	24.74%	-1.89%	2.02%	14.78%	1.18%	5.68%	9.70%	4.36%	7.22%	7.69%
Sales Growth Trend (ROC Sales Growth)	16.99%	8.76%	0.46%	9.68%	6.62%	3.88%	8.09%	5.88%	6.73%	5.99%
EBITDAR Margin	38.49%	39.06%	38.36%	39.02%	37.86%	36.55%	37.81%	38.17%	37.81%	37.18%
EBITDAR Growth	28.26%	-0.43%	0.20%	16.76%	-1.85%	2.04%	13.48%	3.34%	5.65%	7.76%
NOPBT Margin	30.24%	29.19%	28.35%	29.16%	26.58%	25.77%	27.17%	27.81%	27.17%	26.47%
NOPBT Growth	27.33%	-5.32%	-0.91%	18.08%	-7.79%	2.48%	15.66%	1.31%	4.26%	9.07%
NOPAT Margin	22.26%	21.71%	21.21%	23.25%	22.42%	22.04%	21.67%	22.12%	22.57%	21.85%
NOPAT Growth	26.79%	-4.31%	-0.36%	25.83%	-2.43%	3.90%	7.87%	4.53%	9.10%	5.89%
Economic Profit Margin on Sales (EP / Sales)	16.91%	16.08%	14.02%	16.22%	17.26%	18.21%	17.94%	16.36%	17.23%	18.07%
Economic Profit Growth	33.04%	-6.68%	-11.06%	32.75%	7.69%	11.48%	8.09%	6.84%	17.31%	9.79%
Economic Return Spread (ROC-WACC)	19.75%	15.28%	11.81%	15.78%	18.72%	22.93%	25.67%	16.90%	19.14%	24.30%
Economic Return Ratio (ROC / WACC)	415.93%	385.70%	295.17%	330.69%	434.78%	575.20%	631.96%	404.31%	446.89%	603.58%
Economic Profit Momentum (ΔEP/Capital)	4.48%	-1.00%	-1.40%	4.13%	1.39%	2.50%	1.82%	1.12%	2.67%	2.16%
Economic Profit Momentum Margin (ΔEP/Sales)	4.20%	-1.15%	-1.74%	4.00%	1.23%	1.87%	1.34%	0.84%	2.37%	1.61%
Capital Growth	20.92%	20.39%	10.61%	-10.76%	-7.51%	-10.67%	8.09%	0.41%	-9.65%	-1.29%
Capital Turns	1.07X	0.87X	0.80X	1.03X	1.13X	1.33X	1.35X	1.03X	1.16X	1.34X
EVC Acceleration Margin	5.24%	-1.13%	-1.78%	4.59%	1.25%	1.98%	1.47%	0.81%	2.52%	1.74%
EVC Acceleration Spread	5.61%	-1.32%	-1.69%	3.87%	1.21%	2.15%	1.86%	1.14%	2.55%	1.91%
Risk Factors										
Free Cash Flow (NOPAT - Δ Capital)	\$13,455.4	\$4,863.9	\$20,603.1	\$89,346.3	\$76,601.6	\$84,733.9	\$48,419.4	\$55,229.8	\$83,560.6	\$66,576.7
Free Cash Flow Rate (FCF / Capital)	6.45%	1.94%	7.42%	36.04%	33.41%	41.37%	21.87%	24.03%	36.94%	31.62%
Free Cash Flow Yield (FCF / MV)	1.71%	0.81%	2.38%	8.65%	7.45%	5.09%	2.69%	4.88%	7.07%	3.89%
Total Debt / Total Capital	28.20%	36.06%	41.41%	49.52%	51.01%	64.45%	64.45%	48.49%	54.99%	64.45%
Total Debt / EBITDAR	68.68%	106.18%	134.62%	123.02%	119.42%	132.11%	125.83%	123.07%	124.85%	128.97%
Excess Cash	\$191,719.9	\$220,602.1	\$250,377.5	\$230,957.9	\$199,295.4	\$181,602.0	\$0.0	\$216,567.0	\$203,951.8	\$90,801.0
Financial Leverage ((Total Debt - Excess Cash) / Pension Leverage (Net Pension Liability / MV)	-16.84%	-21.60%	-15.63%	-10.48%	-8.01%	-2.98%	7.93%	-11.74%	-7.16%	2.48%
Equity Risk Index (S&P 500 = 1.00)	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Stock Price Volatility	3.12	3.62	3.50	3.25	3.79	4.44	4.44	3.72	3.83	4.44
Sales Index (NL Sales)	12.31	12.29	12.31	12.45	12.46	12.52	12.61	12.41	12.48	12.57
Market Value Index (NL Market Value)	13.58	13.31	13.67	13.85	13.84	14.33	14.40	13.80	14.01	14.36
Size Index (NL Sales: MV)	12.95	12.80	12.99	13.15	13.15	13.42	13.51	13.10	13.24	13.46
Beta	0.94	0.93	0.94	0.96	0.96	0.96	0.96	0.95	0.96	0.96
TFP Adjusted Beta	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Stock Price Volatility	3.12	3.62	3.50	3.25	3.79	4.44	4.44	3.72	3.83	4.44
Valuation Measures										
Total Economic Market Value (MV)	\$789,042.6	\$602,157.2	\$865,945.6	\$1,032,594.5	\$1,027,603.4	\$1,664,766.5	\$1,799,524.3	\$1,038,613.5	\$1,241,654.8	\$1,732,145.4
Economic Enterprise Value	\$597,322.7	\$381,555.1	\$615,568.1	\$801,636.6	\$828,308.1	\$1,483,164.5	\$1,603,222.1	\$822,046.5	\$1,037,703.0	\$1,543,193.3
Equity Market Value	\$730,210.5	\$511,591.5	\$750,897.2	\$909,841.2	\$910,644.8	\$1,532,750.9	\$1,656,822.4	\$923,145.1	\$1,117,745.6	\$1,594,786.7
Total Capital	\$210,180.1	\$251,176.7	\$277,814.4	\$247,910.3	\$229,303.6	\$204,827.6	\$221,407.8	\$242,206.5	\$227,347.2	\$213,117.7
Market Value Created MVC (MV - Capital)	\$578,862.5	\$350,980.5	\$588,131.2	\$784,684.2	\$798,299.8	\$1,459,938.9	\$1,578,116.5	\$796,406.9	\$1,014,307.6	\$1,519,027.7
MVC Margin (MVC / Sales)	260.09%	160.74%	264.01%	306.87%	308.57%	533.95%	526.13%	324.02%	386.24%	529.86%
MVC Spread (MVC / Capital)	275.41%	139.73%	211.70%	316.52%	348.14%	712.76%	712.76%	328.81%	446.15%	712.76%
Current EVC Value (EP / WACC)	\$602,110.5	\$656,827.6	\$516,222.6	\$606,401.5	\$798,808.8	\$1,031,494.2	\$1,114,990.5	\$705,909.5	\$787,638.5	\$1,073,242.4
Current Operations Value COV	\$792,694.1	\$886,730.5	\$780,718.2	\$869,263.8	\$1,037,415.7	\$1,248,559.8	\$1,328,108.2	\$948,496.2	\$1,027,150.2	\$1,288,334.0
Current Operations Value Per Share	\$130.26	\$154.12	\$142.71	\$166.61	\$209.35	\$270.38	\$255.26	\$182.30	\$208.34	\$262.37
Future Growth Value (MVC - EVA Value)	(\$3,651.5)	(\$284,573.3)	\$85,227.4	\$163,330.7	(\$9,812.3)	\$416,206.7	\$471,416.1	\$90,117.2	\$214,504.6	\$443,811.4
Future Growth Value Reliance (FGV / MV)	-0.46%	-47.26%	9.84%	15.82%	-0.95%	25.00%	26.20%	8.68%	17.28%	25.62%
Share Price	\$123.25	\$106.67	\$144.02	\$185.11	\$189.95	\$247.74	\$247.74	\$174.50	\$207.60	\$247.74
Dividend Yield	1.57%	2.02%	1.62%	1.42%	1.56%	1.26%	1.26%	1.57%	1.57%	1.57%
Total Shareholder Return (TTM)	62.27%	-12.25%	37.92%	29.95%	4.17%	31.69%	0.00%	-29.56%	18.97%	19.34%
MV to IC Ratio	3.75X	2.40X	3.12X	4.17X	4.48X	8.13X	8.13X	4.29X	5.46X	8.13X
EV / EBITDAR Multiple	6.97X	4.47X	7.20X	8.03X	8.46X	14.84X	14.14X	8.77X	10.46X	14.47X
EV / NOPBIT Multiple	8.87X	5.99X	9.75X	10.75X	12.05X	21.05X	19.67X	12.07X	14.56X	20.31X
EV / NOPAT Multiple	12.06X	8.05X	13.03X	13.49X	14.28X	24.61X	24.67X	15.09X	17.52X	24.64X
EV / EP Multiple	15.87X	10.86X	19.71X	19.33X	18.55X	29.79X	29.79X	20.32X	22.91X	29.79X
Future Growth Value (% of MV)	-0.46%	-47.26%	9.84%	15.82%	-0.95%	25.00%	26.20%	8.68%	17.28%	25.62%
Current Operations Value (% of MV)	100.46%	147.26%	90.16%	84.18%	100.95%	75.00%	73.80%	91.32%	82.72%	74.38%
Market Value (COV + FGV %)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Basic Shares Outstanding	6,085.6	5,753.4	5,470.8	5,217.2	4,955.4	4,617.8	5,202.9	5,202.9	4,930.2	4,910.4

Source: Company Data, Financial statements and Tigress Research

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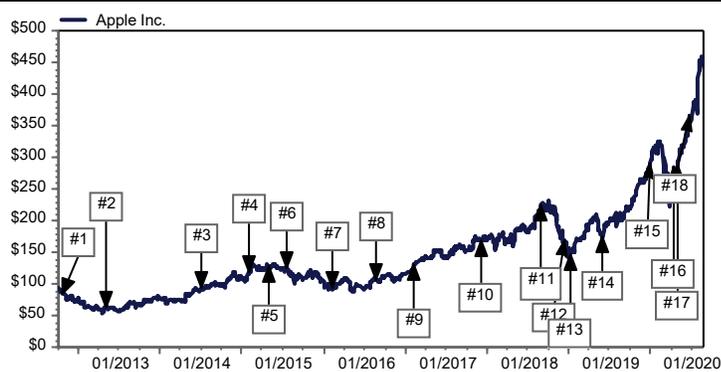
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Apple Inc. (AAPL-US)
Technology Hardware, Storage & Peripherals
Ratings History

Apple Inc. (AAPL-US)				
Item #	Date	Research Action	Rating	Price
#18	06/23/2020	Reiterate Rating	Strong Buy	\$358.87
#17	05/01/2020	Reiterate Rating	Strong Buy	\$293.80
#16	04/14/2020	Reiterate Rating	Strong Buy	\$287.05
#15	12/30/2019	Reiterate Rating	Strong Buy	\$291.52
#14	05/31/2019	Reiterate Rating	Strong Buy	\$175.07
#13	01/04/2019	Reiterate Rating	Strong Buy	\$148.26
#12	12/10/2018	Reiterate Rating	Strong Buy	\$169.60
#11	08/30/2018	Reiterate Rating	Strong Buy	\$225.03
#10	12/04/2017	Reiterate Rating	Strong Buy	\$169.80
#9	02/07/2017	Reiterate Rating	Strong Buy	\$131.53
#8	08/22/2016	Reiterate Rating	Strong Buy	\$108.51
#7	02/08/2016	Reiterate Rating	Strong Buy	\$95.01
#6	07/22/2015	Reiterate Rating	Strong Buy	\$125.22
#5	05/01/2015	Reiterate Rating	Strong Buy	\$128.95
#4	02/04/2015	Reiterate Rating	Strong Buy	\$119.56
#3	07/07/2014	Reiterate Rating	Strong Buy	\$95.97
#2	03/18/2013	Reiterate Rating	Strong Buy	\$65.10
#1	10/25/2012	Initiation of Coverage	Strong Buy	\$87.08


Tigress Research Investment Rating Meanings and Distribution

Tigress Research employs a five-tier rating system for evaluating the investment opportunity and potential return associated with owning the common equity of rated firms within our research universe. The potential return is measured on a relative basis to the general market, which is represented by the S&P 500 and to the subject company's industry peer group as indicated.

Rating Distribution (08/19/2020)

Rating:	Meaning:	Relationship Companies Under Coverage*			
		Companies Under Coverage		Companies Under Coverage*	
		#	%	#	%
Strong Buy:	Expect significant price gains in the price of the stock relative to its industry peer group and general market over the next 12 months.	17	14%	2	22%
Buy:	Expect out-performance for the price of the stock relative to its industry peer group and general market over the next 12 months.	56	46%	6	67%
Neutral:	Expect little or no outperformance opportunity over the next 12 months.	44	36%	1	11%
Underperform:	Expect underperformance for the price of the stock relative to its industry peer group and general market over the next 12 months.	5	4%	0	0%
Sell:	Expect price decline or significant relative market and industry underperformance over the next 12 months.	0	0%	0	0%
Not Rated	No Current Research Rating	NA	NA	97	NA

*Relationship Companies under research coverage are companies in which Tigress Financial Partners LLC or one of its affiliates has received compensation for investment banking or non-investment banking services from the company, affiliated entities and/or its employees within the past twelve months or expects to do so within the next three months.

Total	122	100%	106	100%
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Analyst Certification

I, Ivan Feinseth, hereby certify that the views expressed herein accurately reflect my personal views about the subject company and their securities and that I have not been and will not be directly or indirectly compensated for expressing specific recommendations or views in the report.

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Tigress Research Methodology Overview

We employ proprietary quantitative valuation models combined with dynamic fundamental analysis based on the principles of Economic Profit to formulate timely and insightful investment ratings, analysis, strategies, and recommendations.

We make key adjustments to reported financial data eliminating GAAP-based accounting distortions and measuring all companies on a cash operating basis.

Our proprietary research framework is a multi-factor model that scores and ranks companies based on their risk-adjusted ability to create Economic Profit relative to their current market value focusing on three key components:

Business Performance: Measuring economic profitability, growth, and operating efficiency.

Risk: Measuring business sustainability, volatility, strength, and consistency.

Valuation: Linking business performance to market value. Measuring value created relative to capital employed and enterprise multiples of economic profit and cash flow.

We score and rank 24 key measurements of performance, risk, and value into relative market and industry investment recommendations.

Glossary of Key Terms and Measures

Excess Cash per Share:	Excess Cash per Share is the amount of excess cash divided by basic shares outstanding. Excess Cash consists of all cash and short-term securities, less operating cash needed to run the business. Operating Cash is 5% of TTM net sales revenue.
EBITDAR:	Earnings Before Interest, Taxes, Depreciation, Amortization, and Restructuring, and Rent Costs. This is especially important when comparing companies that use a significant amount of leased assets like restaurants and retailers.
NOPAT:	Net Operating Profit After Tax represents a company's after-tax cash operating profit, excluding financing costs.
Total Invested Capital:	Total Invested Capital the total cash investment that shareholders and debt holders have made during the life of the company.
Return on Capital:	Return on Capital equals NOPAT divided by Total Invested Capital. It is a key measure of operating efficiency. ROC quantifies how well a company generates cash flow relative to the capital invested in its business.
Cost of Capital:	Is the proportionately weighted cost of each category of capital – common equity, preferred equity, and debt.
Economic Profit:	Economic Profit is the net operating income after tax less the opportunity cost of the total capital invested. It is the most important driver of shareholder value.
Current Operations Value:	Current Operations Value is the portion of market value based on the discounted present value of the current earnings stream, assuming it remains constant forever.
Future Growth Value:	Future Growth Value is the portion of market value based on un-earned Economic Profit

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Specific Disclosures for the companies that are the subject of this Report

Company:	Disclosure:
Apple Inc. (AAPL-US)	14

Key Disclosure:

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